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«Молодёжь и современные информационные технологии»

CROWDSOURCING FOR TAGGING PHOTOS

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Abstract

Crowdsourcing platforms allow people to contribute to the society. It facilitates older adults to have active life, sitting at home, in case of possible physical problems. In our research we investigate social network for older adults, which enable posting old photos, labeling it and searching for friends. Existing researches investigate different crowdsourcing methods, but just few papers describes crowdsourcing platforms for seniors. In our research we investigate social network for older adults, which enable posting old photos, labeling it and searching for friends. The aim of my work is to find a proper crowdsourcing algorithm for labeling photos by seniors.

Keywords: *crowdsourcing, photo sharing, tagging, older adults*

Introduction

Crowdsourcing platforms engage more and more participants every day. People do tasks for fun, a sense of purpose or remuneration. Most of the platforms designed for younger generation and older adults usually don't participate in crowdsourcing tasks because of gap between seniors and technologies. Older adults don't use computer technologies due to difficulties to study something new. During active working life they used to live without technologies and now they afraid to use it.

Older adult is big class of people, so we want to study more about technologies which could increase their wellbeing. Elderly can feel lack of communication and goals in life due the fact that they often stay at home, change community and stop working. Social isolation cause psychological and social aspects of wellbeing [3, 5]. Crowdsourcing technologies can help older adults be useful to society even not going out from home.

Societal contributions presents many challenges for older adults. A lot of aged people have difficulties to go out because of physical problems, but they still have a good mental health. Older adults could be useful for the society using their wisdom and years of practice. What give them sense of purpose.

Background and related work

Existing researches investigate crowdsourcing platforms with different goals and participants, but to our knowledge, does not address to image-labeling tasks for older adults. Accomplishing tasks facilitate physical and mental health [4]. There are just few papers about older adults using crowdsourcing platforms.

In this paper [2] we reviewed technologies that enable and facilitate the process of contributing to society in a sustained fashion. Given our focus on older adults, starting at age 60. We analyzed resources which could help older adults be an active part of society using Internet. We found that there is a lack of crowdsourcing platforms for seniors, so they don't participate in it a lot. Also older adults find it challenging, because interface of this platforms is difficult for them. Was analyzed technologies for crowdsourcing and volunteering, which match performer and work provider. Crowdsourcing platforms are enabling people to achieve complex tasks what facilitate in active social life. In some platforms there are tasks which can be done from home. Lack of technologies for older adults makes them be passive in crowdsourcing.

Recollecting past life events has great benefits in terms of psychological well-being [1]. Sharing old photos and searching for other connected with the past positively influence to older adults. There are studies about reminiscence therapy which effectively promote mental health and well-being in later life [6].

Research questions and methodology

The goal of the project is to enable older adults to maintain their social wellbeing - in terms of sustained social interactions and sense of purpose and reduced feeling of loneliness - when going through inevitable life transitions that occur as we age.

My specific goal is to examine how to obtain data from a photo towards finding friends. Data will be taken from older adults, who will tag photos using crowdsourcing platform.

I determine next research questions:

RQ1: What is the most convenient crowdsourcing strategy for capturing data, such as place, time, emotions, event and people from photo?

RQ2: How to consume information collected from a photo?

The methodology of my thesis is:

- proceed to literature review of crowdsourcing studies for obtaining place and time data from a photo
- run preliminary surveys on the crowd participants to refine the hypothesis
- find an crowdsourcing algorithm for tagging photos
- build a prototype and run experiments to test the effectiveness of a given solution
- gather participants feedback and refine the prototype

Planned experiments.

We have access to several nursing homes and permission to do experiment with hundreds older adults. After visits to nursing homes and speaking with staff and patients we have got some ideas about experiment.

Older adults could reduce loneliness by active social live. They could publish photos of the past and search for interesting photos with help of younger relatives or nurses. To find a proper photos we need to use keywords which seniors could tag. Publishing a labeling photos could refresh their memories. Reminiscence positively affect to people.

We planning the experiment to find

- when crowd labels photos similar and when differently;
- difference between structured and unstructured form for labeling;
- how crows describe photos;
- what photos people usually search;
- how people search photos.

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